

REMARKS

Claims 1-28 were presented for examination, and claims 1-28 stand rejected. Thus, claims 1-28 are presently pending in this application, of which claims 1, 8, 11, 21, 27, and 28 are independent. The Abstract has been objected to. The Abstract has been amended in this response. No new matter has been added. Applicant submits that the application and pending claims 1-28 are in condition for allowance. Applicant urges the Examiner to pass the application to allowance in view of the amendments and remarks set forth below.

Abstract

The Abstract was objected to as being too long. Applicants would like to thank the Examiner for pointing out this non-conformity. Applicants have herein amended the Abstract to conform to the size requirement.

Claim Rejections Under 35 U.S.C. §102**Rejection of claim 1-28 under 35 U.S.C. §102(b)**

Claims 1-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Simonson (U.S. Patent No. 5,643,263). Applicant respectfully traverses this rejection.

Summary of Simonson (U.S. Patent No. 5,643,263)

The Simonson reference is directed to a connection assembly for connecting a spinal implant rod to a spinal implant bolt. The connection assembly includes a rod connecting member having an aperture for receiving a portion of the rod and a bolt connecting member having an aperture for receiving a portion of the bolt. The rod connecting member and bolt connecting member are rotatably engaged to one another. A rod interface washer is positioned over a portion of the rod connecting member, and a bolt interface washer is positioned over a portion of the bolt connecting member. The rod interface washer and bolt interface washer are moveable in part between the rod connecting member and the bolt connecting member, the rod connecting washer being fixed against rotation relative to the rod connecting member and the bolt interface washer being fixed against rotation relative to the bolt interface washer. A structure extendable into at least one of the apertures is provided, so as to urge one of the rod and bolt toward the other, and to cause the washers to be pressed together between the rod and the bolt, preventing rotation of the rod interface washer and rod

connecting member relative to the bolt interface washer and bolt connecting member, and securing the rod to the bolt.

Applicant maintains the assertion that Simonson fails to disclose each and every element of claims 1-28. As set forth above, Simonson is directed to a connection assembly for connecting a spinal rod to a *spinal implant bolt*. An implant bolt or screw is inserted into the vertebrae. A rod is connected to the inserted implant bolts to secure the rod in place. As such, the implant bolt is used as a fixation device for a rod. This is not what is being claimed in the present invention. The present invention is directed to connecting a first rod and a *second rod*.

Of claims 1-28, claims 1, 8, 14, 21, 27, and 28 are independent. Independent claims 1, 8, 14, 27, and 28 are device claims and independent claim 21 is a method claim. Every claim is directed to connecting a first rod to a second rod. This is a different problem being addressed than disclosed in the Simonson reference. Applicants disagree with the Examiners assertion that because the recitation of connecting a first rod to a second rod is in the preamble it is to be given no patentable weight. The subject matter of the preamble is invoked in the body of the claim and as such is not “a self-contained description of the structure not depending for completeness on the introductory clause.” The body clearly invokes “the first rod” and “the second rod” that are introduced in the preamble. As such, the preamble clearly gives context to what the invention does. The invention is used for connecting a first rod to a second rod. The structure of the device is based on this use. That is, the housing component defines a first bore hole for receiving a portion of *the first rod* and a second bore hole for receiving a portion of *the second rod*.

As discussed in the background of the invention, the size of a spinal rod depends on the region of the spine where the spinal fixation system is used. For example, in the cervical region of the spine, where the vertebrae tend to be smaller, a relatively smaller spinal rod is used, which is positioned close to the center of the spine. In the thoracic region, where heavier loads are experienced and the vertebrae tend to be larger, a rod having a larger diameter is used. The cervico-thoracic junction of the spine is typically fused using rods of two different diameters to accommodate anatomical differences between the cervical and thoracic spine regions. To accommodate a system including spinal rods having different sizes and configurations, a rod connector may be used to join a first rod and a second rod.

In contrast to this, Simonson is directed to securing a rod with a fixation device (an implant bolt). This is not the same as connecting two *rods*. The specification of the present invention clearly sets forth what a rod comprises and how it is used. It is well understood in the art that a fixation device such as a screw, implant bolt, or anchor is not the same as a rod. Simonson itself distinguishes between a rod and a fixation device. Indeed, as the background of the invention points out, there have been previous rod connectors that attempted to address the desire to connect two rods. Simonson is not one of these previous attempts of a rod connector. Simonson attempts to solve a different problem from the present invention. Simonson is directed to a means for securing a rod using an implant bolt. Nowhere in Simonson is there a disclosure or discussion of connecting a first *rod* to a second *rod*. As such, there is no disclosure of second bore hole for receiving a portion of the second rod as set forth in the independent claims. Therefore, Simonson fails to disclose each and every element of claims 1, 8, 14, 21, 27, and 28.

Claims 2-7, 9-13, 15-20, 22-26 depend either directly or indirectly from claims 1, 8, 14, and 21 respectively and as such incorporate each and every element of claims 1, 8, 14, and 21. As set forth above, Simonson fails to disclose each and every element of claims 1, 8, 14, and 21. Therefore Simonson fails to disclose each and every element of claims 2-7, 9-13, 15-20, 22-26.

In light of the foregoing amendments and remarks, Applicants respectfully submit that claims 1-28 are now allowable. Applicants therefore request the Examiner withdraw the rejections of claims 1-28 under 35 U.S.C. §102(b) and pass the claims to allowance.

Rejection of claim 1-28 under 35 U.S.C. §102(e)

Claims 1-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by Taylor (U.S. Patent No. 6,685,705). Applicant respectfully traverses this rejection.

Summary of Taylor (U.S. Patent No. 6,685,705)

The Taylor reference is directed to a connection assembly between a spinal implant rod and a vertebral anchor. The connection assembly includes a spindle and a housing. The spindle has an aperture for receiving a spinal implant rod in a spinal implant system. A structure for urging the rod within the aperture, such as a setscrew, is provided through a

suitable threaded opening in the spindle so as to be extendable into the aperture. The housing has an aperture for receiving a shaft or shank of a vertebral anchor of a spinal implant system. The housing also has an aperture for receiving a generally cylindrical projection portion of the spindle. A structure for urging the shank of the vertebral anchor against the projection portion, such as a setscrew, is provided through a suitable threaded opening in the housing.

Applicants reassert that Taylor fails to disclose each and every element of claims 1-28. Similar to Simonson, Taylor is directed to a connection assembly for connecting a spinal rod to fixation device, in this case a *vertebral anchor*. Of claims 1-28, claims 1, 8, 14, 21, 27, and 28 are independent. Independent claims 1, 8, 14, 27, and 28 are device claims and independent claim 21 is a method claim. Every claim is directed to connecting a first rod to a second rod. This is a different problem being addressed than disclosed in the Taylor reference. As discussed above, this is not what is being claimed in the present invention. The present invention is directed to connecting a first rod and *a second rod*. Applicants disagree with the Examiners assertion that because the recitation of connecting a first rod to a second rod is in the preamble it is to be given no patentable weight. The subject matter of the preamble is invoked in the body of the claim and as such is not “a self-contained description of the structure not depending for completeness on the introductory clause.” The body clearly invokes “the first rod” and “the second rod” that are introduced in the preamble. As such, the preamble clearly gives context to what the invention does. The invention is used for connecting a first rod to a second rod. The structure of the device is based on this use. That is, the housing component defines a first bore hole for receiving a portion of *the first rod* and a second bore hole for receiving a portion of *the second rod*.

As discussed above, as it states in the background of the invention, the size of a spinal rod depends on the region of the spine where the spinal fixation system is used. To accommodate a system including spinal rods having different sizes and configurations, a rod connector may be used to join a first rod and a second rod.

In contrast to this, Taylor, like Simonson, is directed to securing a rod with a fixation device (a vertebral anchor). This is not the same as connecting two *rods*. As discussed above a rod is not the same as a fixation device such as a vertebral anchor. The specification set forth what a rod is and how it is used. A vertebral anchor is used to secure the rod to the spine. Taylor itself distinguishes between a rod and a vertebral anchor. Taylor attempts to

solve a different problem from the present invention. Taylor is directed to a means for securing a rod using a vertebral anchor. There is no discussion in Taylor of connecting a first *rod* to a second *rod*. As such, there is no disclosure of second bore hole for receiving a portion of the second rod as set forth in the independent claims. Therefore, Taylor fails to disclose each and every element of claims 1, 8, 14, 21, 27, and 28.

Claims 2-7, 9-13, 15-20, 22-26 depend either directly or indirectly from claims 1, 8, 14, and 21 respectively and as such incorporate each and every element of claims 1, 8, 14, and 21. As set forth above, Taylor fails to disclose each and every element of claims 1, 8, 14, and 21. Therefore Taylor fails to disclose each and every element of claims 2-7, 9-13, 15-20, 22-26.

In light of the foregoing amendments and remarks, Applicants respectfully submit that claims 1-28 are now allowable. Applicants therefore request the Examiner withdraw the rejections of claims 1-28 under 35 U.S.C. §102(e) and pass the claims to allowance.

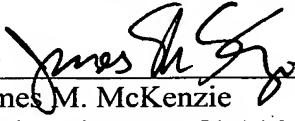
CONCLUSION

In view of the remarks set forth above, Applicant contends each of the presently pending claims in this application is in immediate condition for allowance. Accordingly, Applicant respectfully requests the Examiner to pass the claims to allowance.

If the Examiner deems there are any remaining issues, we invite the Examiner to call the Applicant's Attorney at the telephone number identified below.

Dated: August 4, 2006

Respectfully submitted,
LAHIVE & COCKFIELD, LLP

By 
James M. McKenzie
Registration No.: 51,146
Attorney For Applicant
Lahive & Cockfield, LLP
28 State Street
Boston, Massachusetts 02109
(617) 227-7400
(617) 742-4214 (FAX)